

**DATE PRESENTING CLINICAL SIGNS**

3/8/22

Presented here 2/14: not eating for a week. 106F otherwise NSF, sent to MDEH. At home still wasn't eating too well, readmitted to MDEH with Epistaxis on 2/21. WBC 29k, RBC 4.6k, HCT 33%, PLT 88K (more clumping- sent out for path review: 100K large platelets seen). Er vet suspected immune-mediated thrombocytopenia, mildly anemic, liver enzymes elevated.

**PATIENT**

Shiner Bruey

**SPECIES**

Canine

**BREED**

Boxer

**SEX**

Neutered Male

**AGE**

3/15/19

**WEIGHT**

65.7 Pounds

**INTERPRETED BY**

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(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

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RDMS, RVT

**HOSPITAL NAME**

Fountain Green VC

**REFERRING VET**

Dr. Lerner

**INVOICE**

35962

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, or masses. There is a relatively small pile of shadowing, hyperechoic mineralized debris in the dependent portion of the urinary bladder. This is most consistent with a pile of small stones, or a large pile of sandy debris. Recommend urinalysis and culture.

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size 6.42 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney has a normal shape and size (6.61 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal/borderline small in size measuring 0.4 cm. at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.67 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

### ***Liver***

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach is mildly dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

There is a small amount of free fluid adjacent to the spleen. There is no lymphadenopathy noted. The omentum is of normal echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

- Echogenic shadowing debris in the dependent portion of the urinary bladder – most consistent with a large pile of sandy debris or small stones. Correlate with abdominal radiographs. Recommend urinalysis and culture.
- Large, hyperechoic and heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Small volume free abdominal fluid – Recommend fluid analysis and cytology.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

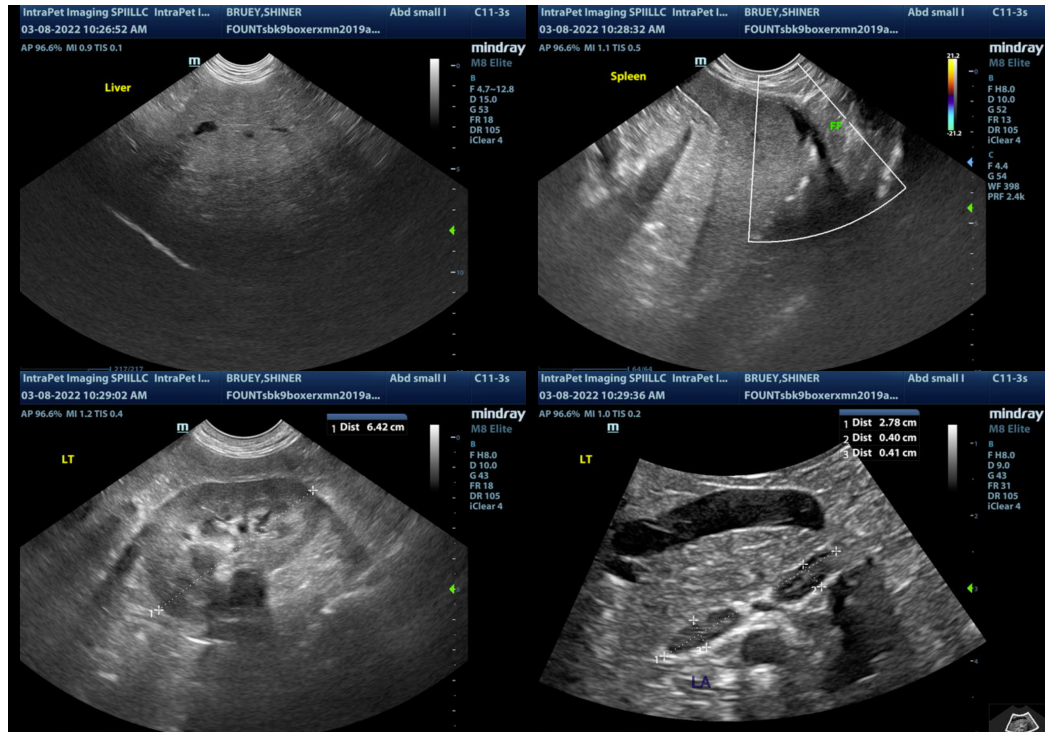
This is an unusual presentation for such a young dog. Consider such differentials as infection (tick borne?), endocarditis, urinary tract infection, etc.

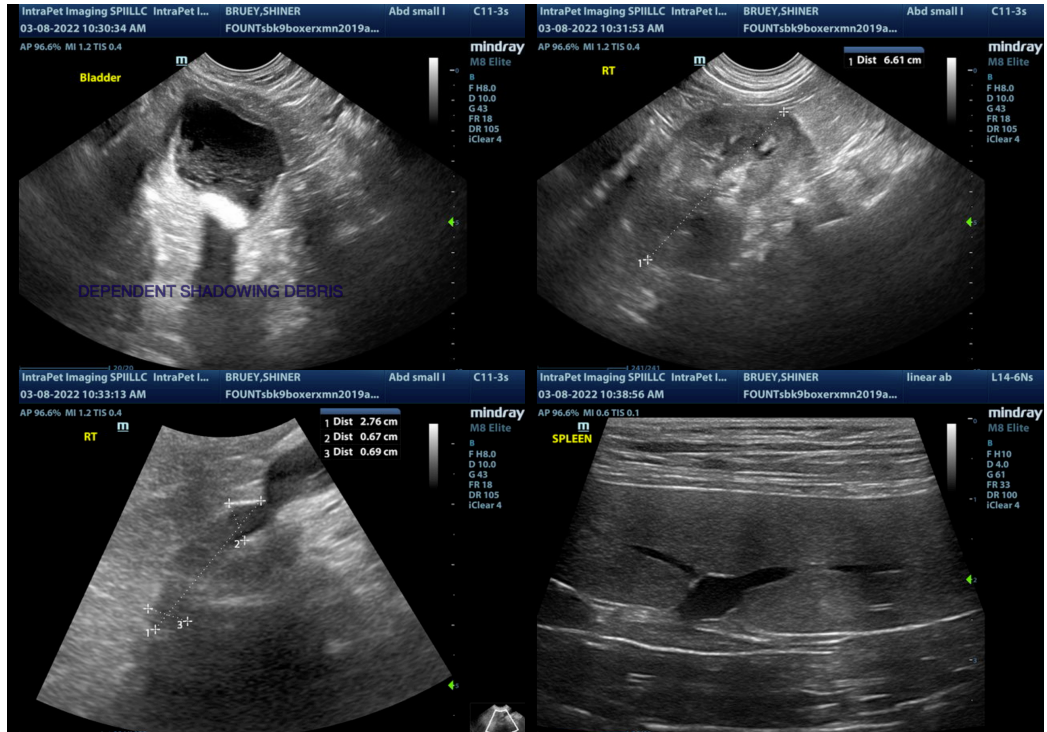
- Recommend urinalysis and culture.
- Listen closely for a new heart murmur, consider blood cultures +/- cardiac ultrasound.
- Recommend vector borne disease testing (I prefer the vector borne disease panel through NC State's vector borne disease lab - canine comprehensive panel).

Additionally consider underlying neoplasia or inflammatory disease.

- Consider a fine needle aspirate of the liver.

This would be a somewhat atypical presentation for immune mediated thrombocytopenia, so caution is warranted with the use of immunosuppressants. It is difficult to interpret some of these results due to current Prednisone therapy. Recommend blood pressure evaluation and possible CT scan of the nasal cavity. Differentials for the epistaxis would be hypertension, vasculitis, a mass lesion (benign, neoplastic, foreign body, etc.), dental disease, etc. If not already done, recommend 3-view thoracic radiographs and careful palpation of the peripheral lymph nodes.





The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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